

Relationship between Human Resource Management Practices and Perceived Performance of Employees in Jordanian Hospitals

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Abstract

The relationship between human resource management (HRM) practices and organizational performance is an important topic in the organizational sciences, but little research examining this relationship in hospital settings has been conducted. This study aims to quantify the effects of HRM practices on employee performance in 5 hospitals in Jordan.

A descriptive survey design was used, wherein data was collected from all the staff of each hospital using questionnaires. The data were analyzed using descriptive statistics and correlation and regression analyses. The results demonstrate that HRM practices have an impact on performance, that Jordanian hospitals do not have effective HRM practices, and that compensation has the greatest impact on increasing an employee's level of performance.

Keywords: Jordanian Hospitals, human resource management practices, hospital performance

1. Introduction

Currently, hospitals operate in a tumultuous and challenging environment characterized by intense rivalry and increasing costs (Taylor & Taylor, 2009). With the competition increasing yearly, the need to improve hospitals' performance has never been greater. In response, many hospitals have greatly increased their use of administrative techniques (McDaniel, 2009), increased the monitoring of resource consumption, and introduced performance measurement and incentive systems for encouraging efficiency (Tulchinsky & Varavikova, 2008). While all these actions may have benefits, eventually, effectiveness and efficiency depend on the decisions and actions of the staff. In turn, these decisions and actions are greatly affected by human resource management (HRM) practices (Chow, Haddad, & Wingender, 2011).

HRM practices can be defined as the linking of human resources with strategic goals and objectives in order to improve the organizational performance (Sims, 2007). It is concerned with the human dimension in management (Rondeau & Wagar, 2002) and refers to a set of programs, functions, and practices prepared and conducted in order to maximize both employee and organization performance (Aswathappa, 2007). Hospital performance is dependent on human resources. Sohail et al (Sohail, Tanveer, & Muneer, 2011) reported that the effects of HRM practices on organization performance have been a significant topic in the sector of HRM. Park et al (2003) determined the extent to which HRM practices directly enhance operational performance. Although many researchers have mentioned the relationship between HRM practices and hospital performance, their studies are limited to developed countries (Khatibi, Asgharian, Saleki, & Manafi, 2012). There is a need for research on the relationship between employee performance and HRM practices in developing countries like Jordan.

2. Research Objectives

This research has the following objectives:

1. To determine the status of HRM practices in Jordanian public hospitals
2. To determine the effect of HRM practices on hospital performance

3. Literature Review

3.1 Healthcare Workforce in Jordan

Jordan is a small Arab country located in the Middle East. In spite of the popular perception of the Middle East region, Jordan has no oil and few natural resources. Although it has scarce natural resources, Jordan has some competitive advantage in its educated, hard-working human resources (Altarawneh & Al-Shqairat, 2010). Employment in the Jordanian health sector has grown more rapidly compared with overall employment. In 2011, individuals employed in the public health sector accounted for 18.7% of the public labor force (Ministry of Health, 2011). However, the workforce needs to strengthen the skills required to implement quality improvement standards and improve performance (EMRO, 2006). In order to effectively manage the healthcare workforce in

Jordan, the Civil Service Bureau (Civil Service Bureau (CSB), 2011) suggests that HRM practices need to shift from a theoretical to a practical perspective.

3.2 Human Resource Management

No business organization, irrespective of its size, can survive without people. The people of any organization are a source of competitive advantage. However, for this to be realized, the organization requires HRM capability to manage productivity and realize the potential within its employees (Ristow, Pearse, Ristow, & Amos, 2008).

HRM practice is considered a critical organizational resource that helps in sustaining effectiveness. HRM refers to the philosophy, policies, procedures, and practices related to the management of an organization's employees (Sims, 2002). It is an important area that influences employees' attitudes and behavior, such as commitment, job satisfaction, and organizational performance. HRM practices can directly influence the organization's performance by improving employees' skills and quality (planning, selection, recruitment, and training), whereas it can indirectly do so by increasing employee motivation (job evaluation and compensation). The present research includes six major HRM practices that impact hospital performance.

3.2.1 Planning

Planning is the process of identifying the right person for the right job at the right time at the right cost (Obeidat, 2012). This process involves the estimation of the future manpower needs of an organization and meeting them through the available labor force. (Pravin, 2010). Koch and McGrath (1996) found a positive relationship between HR planning and labor productivity.

H1: HR Planning positively affects hospital performance

3.2.2 Selection

According to Pravin (2010), selection is the process of choosing the most suitable person for the current or future position from candidates within the organization or from the outside. Research has shown that valid selection tests are very useful in employee selection, and implementation of an effective staffing process is positively correlated with organizational performance (Harel & Tzafirir, 1999). Guest (1977) found a positive relationship between HR selection and labor productivity.

H2: HR Selection positively affects hospital performance

3.2.3 Recruitment

Recruitment is the process of locating and encouraging potential applicants for existing or anticipated job openings. In simple terms, recruitment strategies attempt to create a pool of appropriately qualified, skilled, and experienced people so that selection strategies and decisions can be effective (Compton, Morrissy, & Nankervis, 2009). According to Sohail, Tanveer, and Muneer (2011), there exists a positive relationship between HR recruitment and labor productivity.

H3: HR Recruitment positively affects hospital performance

3.2.4 Training

It can be expected that an investment in both technical and nontechnical training will have a positive impact on the extent to which the firm succeeds in developing the skills/knowledge of its employees (Fey, Bjorkman, & Pavlovskaya, 2000). Saiyadain (2009) opine that the objectives of training differ according to the employees at different organizational levels. The basic objective of training is to establish a match between an employee and his job to improve knowledge, skills, and attitude, thus equipping the individual to be more effective in his current job or prepare him for a future assignment. Mansour (2010) found a positive relationship between HR training and labor productivity.

H4: Training positively affects hospital performance

3.2.5 Job Evaluation

The job evaluation process starts with defining the objectives of evaluation and ends with wage and salary. It is a practice that seeks to provide a degree of objectivity in measuring the value of jobs within the organization and among similar organizations. It is a systematic and orderly process of determining the worth of a job in relation to other jobs and determining the relative worth of the various jobs within the organization (Kumar, 2011).

H5: HR Job evaluation positively affects hospital performance

3.2.6 Motivation

Motivation can be defined as the willingness to exert and maintain an effort toward organizational goals. Low motivation has a negative impact on the performance of individual health workers, facilities, and the health system as a whole (Mathauer & Imhoff, 2006).

H6: Motivation positively affects hospital performance

3.2.7 Compensation

Employers spend an excessive amount of money for employee compensation (Mathis & Jackson, 2011). A compensation system based on excellence increases employee performance and competitive advantage. One way by which the compensation system contributes to the organization's performance is by enabling the organization to attract more and better candidates and retain essential employees for longer periods of time. According to Chow, Haddad, and Wingender (2001), there exists a positive relationship between HR training and labor productivity.

H7: Compensation positively affects hospital performance

3.3 Human Resource Management in Hospitals

Times have changed and specialization has become the order of the day. No institution can be more sensitive than a hospital because it deals with the life and death of its patients (Cassel, 2005). Modern hospitals need not only highly qualified medical specialists, para-medical and nursing officers, but also personnel managers, finance officers, cost accountants, housekeeping officers, etc. Thus, new concepts have been introduced in the management of hospitals for the proper utilization of hospital resources. It is, therefore, imperative to have separate specialists for general administrative and human resource functions in hospitals (Hernandez & O'Connor, 2010).

HRM practices in hospitals has now become a necessity in order to achieve (a) effective utilization of human resources; (b) desirable working relationships among all employees; (c) maximum employee development; (d) high morale within the organization; and (e) continuous development and appreciation of human assets (Goyal, 2005).

3.4 Performance Evaluation

To understand the concept of performance evaluation, one must first understand the concept of performance. Performance refers to the degree of duties completed by an employee, indicating how well an employee performs the requirements of a job (Taloo, 2007). Performance evaluation systems are a core component of organizations' management control systems and comprise two basic components: performance measures and performance targets. Performance measures represent the dimensions on which the performance of an organizational unit (or individual) will be measured. With the selection of measures, appropriate targets should be set, that is, the expected performance or, more precisely, the performance that is required for each of the measures needs to be identified (Dekker, Groot, & Schoute, 2012).

In the opinion of (Shahraji, et al., 2012), the performance of an individual can be considered a result of the interaction among efforts, capabilities, and perceptions of the role. Efforts refer to the amount of energy (physical or mental) that a person expends to perform his/her duties. Capabilities are personal characteristics used to perform a job, and perceptions of the role refer to ways by which efforts should be guided in order to perform their jobs.

According to Zainal and Nasurdin (2011), the impact of HRM practices on organization performance is dependent on how HRM practices affect employees' skills, abilities, and motivation as well as organizational structure. The impact of HRM practices on employees' skills and abilities are portrayed in recruitment, selection, and training. Organizations can hire employees through sophisticated selection procedures created to choose the best potential employees. After selection, employees can be provided with comprehensive training and development programs in order to advance their knowledge, skills, and ability in performing their jobs. Second, the effectiveness of skilled employees will be restricted if they are not motivated to perform the job. Therefore, to motivate employees, employers can encourage efficiency through performance appraisals based on individual and group performance. Relating these appraisals to internal promotion systems based on employee merit and other types of incentives will support the interest of employees with those of shareholders. Finally, the contribution of skilled and motivated employees is influenced by the way in which a workplace is structured. If jobs are structured, it will limit the way in which employees perform their job. Therefore, HRM practices can affect organizational performance in addition to the organizational structure, which supports employees' participation and encourages them to improve the way in which they perform their jobs. Relevant practices in achieving organizational performance include employee participation, internal promotion systems, team-based production systems, and job security.

3.5 Hospital Performance

Hospitals are businesses providing health services. In order to reach the objectives of health institutions, it is essential to determine measurable and comparable service criteria. Evaluation of hospital performance contains a multidimensional structure. Therefore, there are no common criteria to measure performance of all hospitals. A wide variety of criteria are used for the evaluation of individual or institutional performance in hospitals

(Sobolev, Sánchez, & Kuramoto, 2012). Performance indicators in hospitals can be classified into four groups: indicators based on the use and level, indicators based on the dimensions of performance, financial indicators, and indicators related to resources (Akpinar & Tas, 2012). For the current study, three measures of health outcomes were obtained: productivity, health outcomes, and staff results.

4. Methodology

The survey was conducted during 2011 and 2012. The study design adopted was descriptive and analytical based on the random sampling technique. The study population included all healthcare providers in the five central Jordanian public hospitals. A structured questionnaire was used to collect data from respondents; the Likert scale of 1 to 5 was used. Forty nine questions were included in this questionnaire, which attempts to measure several dimensions that represent both HRM practices and hospital performance.

The questionnaire was administered to 420 employees. A total of 362 questionnaires were returned, giving an 86% response rate. The average age was 30.3 years. The majority of respondents had a higher university degree (91.1%), and 76% employees had worked in the organization for less than 10 years.

The statistical package used was SPSS version 17. Cronbach's alpha, descriptive statistics (mean and standard deviation), and correlation and linear regression analyses were used to examine the characteristics of the research sample and determine the relative importance for each of the human HR dimensions in performance.

For the purposes of this study, the reliability of the data was tested on the scales used to measure the seven independent and one dependent variable using Cronbach's alpha coefficients. Ideally, a value of >0.6 confirms the internal consistency of the scales. The results, as shown in Table 1, indicate that seven of the scales used to measure dependent and independent variables have internal consistency. Therefore, the instrument used in this study had strong internal reliability and could be used with confidence in further statistical analysis and interpretation.

Table 1. Reliability Statistics

Scales	Cronbach's Alpha	Number of Items
Human resource planning	0.77	4
Human resource selection	0.67	4
Human resource recruitment	0.82	4
Human resource training	0.64	3
Human resource performance evaluation	0.70	3
Human resource motivation	0.79	5
Human resource compensation	0.81	3
Hospital Performance	0.90	9

5. Findings

The first objective was to determine the status of HRM practices in Jordanian hospitals. Table 2 shows the opinion of respondents toward HRM practices; the analysis was based on mean \pm standard deviation values. The mean values ranged from highest (3.01) to lowest (2.50). The mean score of job evaluation was 3.05 ± 1.0 . These results reveal that job evaluation practices are currently moderate enough to allow hospitals to monitor the worth of a job in relation to other jobs.

To assess the tendency of organizations to develop human resources through training, the majority of respondents disagree that the employees can get appropriate training in public hospitals ($2.97 \pm .95$). Besides, the staff compensation best practice records a mean score of $2.76 \pm .90$. These finding shows a low level of attractive rewards given to staff. The mean scores of motivation practice were found to be 2.74 ± 1.0 , which indicates a low level of effective motivation practice implementation within hospitals. Furthermore, the respondents disagree that their hospital builds an effective selection system to improve organizational outcomes (2.72 ± 0.72). The mean score of employee recruitment practice was 2.70 ± 0.95 , indicating low fit recruitment system within hospitals. Human resource planning had a mean score of 2.50 ± 0.74 ; this result indicates a low level of effective planning practice within hospitals.

Table 2: Measure of descriptive statistics of the research constructs

Construct	Construct Type	Mean	Standard Deviation	Skewness
Human resource planning	Independent	2.50	0.74	0.05
Human resource selection	Independent	2.72	0.72	0.67
Human resource recruitment	Independent	2.70	0.95	0.34
Human resource training	Independent	2.97	0.92	0.32
Human resource job evaluation	Independent	3.01	1.0	0.03
Human resource motivation	Independent	2.74	1.00	0.05
Human resource compensation	Independent	2.76	0.90	0.25
Hospital Performance	Dependent	2.93	0.74	0.01

It is clear that HRM practices are not well established in Jordanian public hospitals. These results can be considered as a poor sign that different practices are not communicated among hospitals and are not recognized by employees.

5.1 Hypothesis Testing and Results

In order to test the study hypotheses, multiple regressions analysis was used. As mentioned earlier, HRM practices (planning, selection, recruitment, training, job evaluation, motivation, and compensation) were treated as an independent variable and hospital performance was treated as a dependent variable.

Table 3: Summary of the research subhypotheses (H1–H6) and their results

Hypothesis	R Square	F	Sig.	Beta	T-Value	Sig.	Comment
H1: Human resource planning	.688	793	.00	.163	2.96	.00	Accept
H2: Human resource selection				.145	3.24	.00	Accept
H3: Human resource recruitment				.275	4.98	.00	Accept
H4: Human resource training				.093	1.58	.11	Reject
H5: Human resource jobs evaluation				.196	3.52	.00	Accept
H6: Human resource motivation				.108	1.87	.06	Reject
H7: Human resource compensation				.403	7.52	.00	Accept

Table 3 shows that the F value was 793 and the p value was .00. Because the p-value is smaller than the level of significance (0.05), the research model is accepted at the $p \leq 0.05$ significance level. Therefore, there is a statistically significant impact of HRM on performance. Otherwise, as shown above in Table 3, the R-square value was 0.688, indicating that the 68.8% variation in hospital performance can be explained by (or accounted by) the variation in HRM practices. In other words, human resource dimensions (independent variables) have the ability to predict the outcome variable (dependent variable).

Relating to the results of testing the seven hypotheses, the 't' and sig. values, as shown in Table 3, present a rough indication of the impact of every predictor variable. A big absolute 't' value and a small 'p' value suggest that an independent variable has a large impact on the dependent variable (Brace, Kemp, & Snelgar, 2003). The results show that human resource planning, selection, recruitment, job evaluation, and compensation have a significant impact on hospital performance. Also, the standardized beta coefficient is a measure of the contribution of each predictor or a measure of how strongly each predictor variable influences the criterion variable. A large value indicates that a unit change in this predictor variable has a large effect on the criterion variable. The strongest predictor for hospital performance was compensation ($\beta = 0.403$), followed by recruitment ($\beta = 0.275$), job evaluation ($\beta = 0.196$), planning ($\beta = 0.163$), and selection ($\beta = 0.145$).

The findings revealed that compensation is the strongest or the most important predictor of hospital performance in Jordanian public hospitals. This result is compatible with the idea that human resource compensation is considered to be one of the main components of an HRM system.

6. Conclusion

While there is a burgeoning HRM literature focusing on industrial settings, relatively little analogous research has been conducted in healthcare settings. The objective of this research was to investigate whether HRM practices can affect hospital performance. Within the limitations of the study, our findings suggest that HRM practices are related to hospital performance. Even though HRM practices have been considered to be significant factors for boosting the performance of an organization, most Jordanian hospitals do not practice HRM

effectively in their business. The main contribution of this research will be to persuade hospital managers to pay serious attention to the relationship between HRM practices and performance. They should also consider how to enhance the capabilities in the fields of human resource and skills development in order to increase hospital performance.

Future studies should look into the possible inclusion of other HRM factors, such as supervision, employee participation, job description, and pay practices, as important factors in relation to job satisfaction and hospital performance.

References

- Akpinar, A., & Tas, Y. (2012). Performance Evaluation in Hospitals: An Investigation on the Effects of the Performance Based Payment System in Research and Practice Hospital of Kocaeli University. *European Journal of Economics, Finance and Administrative Sciences* (Issue 47), pp:134-142.
- Altarawneh, I., & Al-Shqairat, Z. (2010). Human Resource Information Systems in Jordanian Universities. *International Journal of Business and Management*, Vol. 5, No. 10, pp:113-127.
- Aswathappa, K. (2007). *Human Resource And Personnel Management*. New Delhi: Tata McGraw-Hill.
- Bazghaleh, Z., & Rad, R. (2011). Human Resource Management Practices in Teaman Company. *Interdisciplinary Journal of Contemporary Research in Business*, Vol. 3, No. 3, pp:944-953.
- Brace, N., Kemp, R., & Snelgar, R. (2003). *Spss for Psychologists: A Guide to Data Analysis Using Spss for Windows* (Third Edition ed.). London: Palgrave Macmillan.
- Cassel, J. (2005). *Life And Death In Intensive Care*. USA: Temple University Press.
- Chow, C., Haddad, K., & Wingender, R. (2011). Improving Hospital Performance through Organizational Culture. *Advances In Management*, Vol. 4 (7), pp:33-38.
- Civil Service Bureau (CSB). (2011). *Workforce in the Public Sector*. Amman.
- Compton, R., Morrissy, W., & Nankervis, A. (2009). *Effective Recruitment and Selection Practices*. Australia: CCH Group.
- Dekker, H., Groot, T., & Schoute, M. (2012). Determining Performance Targets. *Behavioral Research in Accounting*, Vol. 24, No. 2, pp:21-46.
- EMRO. (2006). *Health System Profile-Jordan*. World Health Organization.
- Fey, C., Bjorkman, I., & Pavlovskaya, A. (2000). The Effect of Human Resource Management Practices on Firm Performance in Russia. *Int J of Human Resource Management*, Vol. 11, pp:1-18.
- Goss, D. (1996). *Principles of Human Resource Management*. London: Routledge.
- Goyal, R. (2005). *Hospital Administration And Human Resource Management* (4th ed.). New Delhi: Prentice-Hall of India.
- Guest, D. (1977). Human resource Management and Performance: A Review and Research Agenda. *The International Journal of Human Resource Management*, Vol. 3, No. 8, pp:263-276.
- Harel, G., & Tzafirir, S. (1999). The Effect of Human Resource Management Practices on the Perceptions of Organization and Market Performance of the Firm. *Human Resource Management Journal*, Vol. 38, No. 3, 185-200.
- Hernandez, R., & O'Connor, S. (2010). *Strategic Human Resources Management: In Health Services Organizations*. USA: Delmer.

- Khatibi, P., Asgharian, R., Saleki, Z., & Manafi, M. (2012). The Effect of HR Practices on Perceived Employee Performance: A study of Iranian. *Interdisciplinary Journal of Contemporary Research in Business*, Vol. 4, No. 4, pp:82-98.
- Koch, M., & McGrath, R. (1996). Improving Labor Productivity: Human Resource Management Policies Do Matter. *Strategic Management Journal*, Vol. 17, (Issue:5), pp:335-354.
- Kumar, R. (2011). *Human Resource Management: Strategic Analysis Text and Cases*. New Delhi: International Publishing House.
- Mansour, M. (2010). *HR Practices Impact on Firm Performance: An Empirical Study*. King Fahd University of Petroleum and Minerals, Management and Marketing Department, KSA.
- Mathauer, I., & Imhoff, I. (2006). Health Worker Motivation in Africa: the Role of Non-Financial Incentives and Human Resource Management Tools. *Human Resources for Health Journal*, Vol. 4:24, pp:1-18.
- Mathis, R., & Jackson, J. (2011). *Human Resource Management*. USA: South-Western Cengage Learning.
- McDaniel, J. (2009). *Advances in Information Technology and Communication in Health*. Ireland: OS Press.
- Ministry of Health. (2011). *Annual Statistic Book*. Amman.
- Obeidat, B. (2012). The Relationship between Human Resource Information System (HRIS) Functions and Human Resource Management (HRM) Functionalities. *Journal of Management Research*, Vol. 4, No. 4, pp:192-210.
- Park, H., Mitsuhashi, H., & Bjorkman, I. (2003). The Effect of Human Resource Management Practices on Japanese MNC Subsidiary Performance: a Partial Mediating Model. *The International Journal of Human Resource Management*, Vol. 14, pp:1391-1406.
- Pravin, D. (2010). *Human Resource Management*. India: Dorling Kindersley.
- Pravin, D. (2010). *Human Resource Management*. India: Person.
- Ristow, A., Pearse, N., Ristow, L., & Amos. (2008). *Human Resource Management*. South Africa: Juta and Co.
- Rondeau, K., & Wagar, T. (2002). Reducing the Hospital Workforce: What Is the Role of Human Resource Management Practices. *Research and Perspectives on Healthcare*, Vol. 80, no. 1, pp:12-18.
- Saiyadain, M. (2009). *Human Resources Management 4E*. New Delhi: McGraw-Hill.
- Savaneviciene, A., & Stankeviciute, Z. (2011). Human Resource Management Practices Linkage with Organizational Commitment and Job Satisfaction. *Economics and Management Journal*, Vol. 16, pp:921-928.
- Shahraji, M., Rashidipanah, M., Soltaninasanb, R., Golroudbari, M., Tavakoli, A., Khorshidifard, S., et al. (2012). Approaches of Performance Evaluation in Organizations. *Interdisciplinary Journal of Contemporary Research in Business*, Vol. 4, No. 8, pp:620-625.
- Sims, R. (2002). USA: Organizational Success through Effective Human Resources Management. USA: Greenwood.
- Sims, R. (2007). *Human Resource Management: Contemporary Issues, Challenges, and Opportunities*. USA: Information Age Publishing.
- Sobolev, B., Sánchez, V., & Kuramoto, L. (2012). *Health Care Evaluation Using Computer Simulation: Concepts, Methods, and Applications*. New York: Springer.
- Sohail, N., Tanveer, Y., & Muneer, A. (2011). Human Resource Practices as a Performance Tool in the Telecom Industry of Pakistan. *Interdisciplinary Journal of Contemporary Research in Business*, Vol. 3, No. 7.
- Taloo, T. (2007). *Business Organisation and Management*. New Delhi: Tata McGraw-Hill.

- Taylor, R., & Taylor, S. (2009). *The Aupha Manual of Health Services Management*. USA: AUPHA.
- Tulchinsky, T., & Varavikova, E. (2008). *The New Public Health: An Introduction for the 21st Century*. California: Elsevier Academic Press.
- Turner, C. (2009). *Corporate Governance: A practical guide for accountants*. USA: Cima Publishing.
- Uysal, G. (2012). Human Resource Focus in TQM Awards. *Journal of US-China Public Administration*. Vol. 9, No. 3, pp:338-345.
- Zainal, S., & Nasurdin, A. (2011). Investigating the Role of Human Resource Management Practices on the Performance of SME: A Conceptual Framework. *Journal of Global Management*, Vol. 3, No. 1, pp:74-92.

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